CLAIMS

What is claimed is:

1. A method of production planning comprising:

receiving production objects , wherein each object has at least one attribute;

calculating a plurality of preference scores according to the attributes of the production objects; wherein each preference score represents desirability of transition from manufacturing a first object to a second object; and

identifying a suggested production plan which includes a sequence order of two or more production objects in response to the preference scores.

2. The method of claim 1, wherein calculating a plurality of preference scores further includes identifying transition preference values associated with the attributes.

3. The method of claim 2, wherein calculating a plurality of preference scores further includes utilizing statistical algorithm to compute transition preference values.

4. The method of claim 2, wherein identifying transition preference values further includes obtaining transition preference values from historical database.

5. The method of claim 1, wherein calculating a plurality of preference scores further includes identifying a portion of the preference scores represents desirability of transition from manufacturing the first object to a third object.

6. A method of adaptive learning comprising:

identifying a plurality of attributes in response to production tasks;

obtaining a plurality of transition preference values in response to the plurality of attributes;

calculating a plurality of preference scores in response to the plurality of transition preference values;

providing the plurality of preference scores to a decision engine; and

receiving a final production plan.

7. The method of claim 6, further comprising updating the planning preferences in response to the final production plan.

8. The method of claim 6, wherein the identifying a plurality of attributes further includes identifying a plurality of attributes associated with each production object.

9. The method of claim 6, wherein the identifying a plurality of attributes in response to a required production objects further includes obtaining a plurality of production considerations from the required production objects.

10. The method of claim 9, wherein the plurality of production consideration further includes identifying demand of goods to be produced.

11. The method of claim 9, wherein the plurality of production considerations further includes identifying changeover durations between the production objects.

12. The method of claim 9, wherein the plurality of production considerations further includes identifying production rates and capacities to produce the required production objects.

13. The method of claim 6, wherein the identifying a plurality of transitions further includes identifying a combination of transitions between the production objects in response to the plurality of attributes.

14. The method of claim 6, wherein the obtaining a plurality of transition preference values further includes identifying a numerical value representing a transition from a first object to a second object in response to similarity of attribute values for the first and second objects.

15. The method of claim 6, wherein the obtaining a plurality of transition preference values in response to the plurality of attributes from a historical planning data storage further includes identifying a recent past planning preference from a distant past planning preference.

16. The method of claim 6, the predefined algorithm further includes utilizing a statistical algorithm to derive the preference score.

17. The method of claim 6, wherein the providing the preference score as at least a portion of quantified planning preferences to a decision engine further includes providing a plurality of modified parameters in response to the preference score.

18. The method of claim 6, wherein the updating the planning preferences relating to the required production objects in response to the final production plan further includes identifying a plurality of planner's adjustments.

19. The method of claim 18, wherein the updating the planning preferences further includes modifying the transition preference values associated with the required production objects in response to the plurality of planner's adjustments.

20. A method of manufacturing planning system comprising:

an adaptive learning of planning preferences of claim 6; and

a decision engine, wherein the decision engine receives inputs from the adaptive learning of planning preferences and outputs a suggested plan.

21. A method of manufacturing planning system comprising:

providing a scenario description to a decision engine; and

providing planning preferences to the decision engine, wherein the planning preferences is obtained from a historical data storage; and

generating a suggested plan in response to the scenario description and planning preferences.

22. The method of claim 21 further comprising:

receiving a description of production requirements;

obtaining planning preferences from the adaptive learning engine;

adjusting the suggested plan to create a final plan;

providing the final plan to the adaptive learning engine; and

modifying the planning preferences in response to the final plan.

23. The method of claim 22, wherein the receiving a description of production requirements includes identifying at least one item to be manufactured.

24. The method of claim 22, wherein the obtaining planning preferences from the adaptive learning engine further includes identifying a plurality of attributes associated with the production requirements.

25. The method of claim 24, wherein the identifying a plurality of attributes associated with the production requirements further includes obtaining a plurality of transition preference values associated with the plurality of attributes.

26. The method of claim 25, wherein the obtaining a plurality of transition preference values associated with the plurality of attributes further includes calculating a plurality of planning preferences in response to the plurality of transition preference values.

27. The method of claim 22, wherein the adjusting the suggested plan to create a final plan further includes modifying at least one parameter of the planning preferences by a planner.

28. The method of claim 22, wherein the adjusting the suggested plan to create a final plan further includes modifying at least one parameter of the planning preferences in response to inputs from the adaptive learning engine.

29. The method of claim 22, wherein the modifying the planning preferences in response to the final plan further includes storing updated planning preferences to a local storage.

30. The method of claim 22, wherein the modifying the planning preferences in response to the final plan further includes storing updated planning preferences to a remote storage.

31. The method of claim 22, wherein the modifying the planning preferences in response to the final plan further includes storing updated planning preferences to a storage located across a network.

32. The method of claim 22, wherein the obtaining planning preferences from the adaptive learning engine further includes obtaining planning preferences from a plurality of storages across a network of factories.

33. The method of claim 22, wherein the providing the final plan to the adaptive learning engine further includes monitoring a plurality of forecasts from multiple sources.

34. The method of claim 33, wherein the monitoring a plurality of forecasts from multiple sources further includes selecting an optimal forecast in response to the planning preferences.